

Use of Psychotropic Drugs by U.S. Adults

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THE MOOD-CHANGING drugs can be divided into three broad categories—the hard drugs, such as opium derivatives and cocaine; the psychedelic drugs, such as LSD and the mescaline group, plus the older marijuana; and finally, the psychotropic drugs, namely, the sedatives, tranquilizers, and stimulants.

The first group is associated with urban slums, depressed minorities, and organized crime. The second group is usually visualized in terms of college campuses or hippy dropouts in little urban enclaves throughout the nation. It is associated with avant-gardism, alienation, and the revolt of youth. Both groups have been exhaustively analyzed in serious books and articles, magazine popularizations, and even in the comic strips. These two groups are—or can be made to appear—more exciting, glamorous, and dangerous or as representing a greater social problem than the third group. Thus the third group, psychotropic drugs, has been generally neglected by social researchers.

Yet the drug of choice for most adult Americans who use mood-changing drugs is a psychotrope. For every user of the “hard” narcotics

or psychedelics, there are many times more users of the milder, generally medically prescribed psychotropes. (These psychotropic drugs, however, are by no means all medically prescribed. For example, a substantial proportion of the yearly production of stimulants traditionally moved in nonmedical channels before the passage of the Federal drug abuse control legislation of July 1966).

In 1965, some 58 million new prescriptions and 108 million refills were written for psychotropes, and these 166 million prescriptions accounted for about 14 percent of the total prescriptions of all kinds written in the United States in that year. Indeed, for the years 1963–65, psychotropics accounted for a steady 14 percent of all prescriptions, at a yearly cost rising from \$511 million in 1963 to \$589 million in 1965 (1). Of every three prescriptions for psychotropic drugs, two are refills (1) compared with the normal 50–50 rate for other drugs—the preponderance of refills tending to operate against any sharp decline in consumption. Earlier research centered in the Metropolitan New York area suggests that on the order of three-fourths of the 166 million prescriptions for psychotropic drugs were written by general practitioners and about one in 20 by psychiatrists (2).

Despite the data on manufacture and sales and on prescriptions and costs of the psychotropic drugs, little material has been available on the prevalence of use. We have not known what proportion of American adults had ever taken, or was currently taking, these drugs. However, now perhaps for the first time, fairly accurate

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figures are available to indicate the probable minimal prevalence of the use of psychotropic drugs.

Besides the surveys by the Opinion Research Corporation (ORC) of Princeton, N.J., and by the Social Research Group (SRG), on which my paper is based, research completed to date on psychotropic drug use includes an intensive pretest of an experimental questionnaire on several hundred adults in a Washington, D.C., suburb, an analysis of the answers to specific questions about the use of psychotropic drugs which were asked in a large national survey of American drinking behavior, and an intensive study of psychotropic drug use in a single California city by the Langley Porter Institute of Berkeley, Calif.

Sources of Data

The research material from which my paper is derived represents the first wave in a series of sample surveys on the use of psychotropic drugs by U.S. adults. The 4-year project is designed to yield new data and fill in gaps on such subjects as the overall pattern of use, the frequency of use of specific types, the major stresses and stress symptoms that affect various subgroups in the U.S. population and the "copes"—the psychotropic drugs or other methods by which these subgroups handle such stresses, the types of personalities that seek out various kinds of copes, prevalent attitudes about use, and the sources of the psychotropic drugs—medical, quasi-medical, and extra-medical.

The first survey of a national sample for the Social Research Group was conducted by the Opinion Research Corporation. A few specific questions on the use of psychotropic drugs were added as "riders" to a questionnaire that the corporation administered in May 1967 to a national sample of Americans 18 years and over. The three questions added represented an attempt to obtain simple approximations of the current prevalence of psychotropic drug use among U.S. adults. Therefore data on dosage and frequency are lacking. For similar reasons, differential prevalence can only be analyzed in terms of relatively simple demographic factors. Also, there are compelling reasons to believe that the respondents' reports on use are underestimates (3). Experience with more refined methods of

interviewing, such as a fairly elaborate approach to respondents' use of psychotropic drugs by collecting data on their health symptoms and their methods of coping with these symptoms and by the use of life-size color reproductions of the most common psychotropic pills, suggest that such techniques bring forth an increment of psychotropic drug users who are not reached by simple, conventional direct questioning (4). Thus, the prevalence figures cited in my report should be considered as minimal.

Despite these caveats, the data from the national survey are of interest and value, for they provide to a considerable degree what has been previously lacking, namely, reasonably accurate estimates of the minimal current prevalence of psychotropic drug use, plus a map of differential drug use by various subgroups in the population.

Psychotropic Drug Use in Past 12 Months

The results from two surveys of national samples, conducted independently by the Opinion Research Corporation and the Social Research Group, suggest that about one-fourth of the U.S. adult population currently use one or another of the legal psychotropic drugs—sedatives, tranquilizers, and stimulants (table 1).

Fieldwork for the Opinion Research Corporation study was conducted in May 1967 with a national sample of Americans 18 years and older. The respondents were asked the following questions:

Table 1. Percent of respondents in two surveys who used psychotropic drugs in past 12 months, by type of drug

Type of psychotrope	Social Research Group survey (N=3,990)	Opinion Research Corporation surveys	
		Respondents 21 years and over (N=2,531)	Respondents 18-20 years (N=118)
Any type ¹	25	24	25
Sedatives.....	13	11	4
Tranquilizers....	14	15	12
Stimulants.....	7	6	14

¹ Less than the sum of the percents for the various types because many respondents used more than one type.

Table 2. Percent of adult respondents in Social Research Group survey of October 1967 who had used psychotropic drugs at any time, by period of use and type

Period of use	Any type	Sedatives	Tranquilizers	Stimulants
Percent ever using ¹ -----	48	24	26	14
Past 12 months---	25	13	14	7
Previous 2 years--	10	5	5	2
Earlier-----	14	6	7	5

¹ The percents for the 3 periods of use may not add to the percent ever using since the individual percents have been independently rounded.

“During the past 12 months, have you used any pills or medicines one or more times to help you sleep at night—pills that are often called sedatives, such as Seconal, Phenobarbital, Doriden, Sleep-Eze, and the like?

“. . . to help you calm down or keep you from getting nervous and upset—pills that are often called tranquilizers, such as Miltown, Equanil, Librium, Compoz, and the like?

“. . . that help you stay awake, pep you up, help you to lose weight or cheer you up—pills that are often called stimulants, such as Hexamyl, Dexedrine, Elavil, Preludin, No-Doz, and the like?”

The respondents in the Social Research Group survey of April–October 1967 were instructed as follows:

“Here are three questions about the types of pills that people use. For each of the three types of pills listed below, please circle how recently you have used that type.

“A. Pills that help you sleep at night, like Sleep-Eze, Phenobarbital, and the like.

“B. Pills to calm you down and keep you from getting nervous and upset—pills that are often called tranquilizers, like Equanil, Compoz, and the like.

“C. Pills that pep you up, help you stay awake, make you more alert and less tired, that help you lose weight—pills that are often called stimulants, like Dexedrine, Dexamyl, No-Doz, Preludin, and the like.”

For comparison, the ORC results for respondents under 21 years appear in a separate line in table 1. All subsequent data from the ORC study, however, include this younger group.

All differences to which I refer in this paper were found to be reliable at the 0.05 level or better; many of them were found to be reliable at the 0.01 level or better. Calculations of the reliability of differences are, of course, based on unweighted numbers. The percentages for drug use simply refer to the proportions of respondents in a subgroup who reported using one or more of the classes of psychotropic drugs at least once within the 12 months preceding the survey. Total ingestion is not considered, but it will be in the course of the 4-year project.

The evidence from the two surveys indicates that use of the “down” drugs (sedatives and tranquilizers) is markedly more common than use of the “up” drugs (stimulants). This pattern, however, does not appear to obtain among respondents aged 18, 19, and 20 years. Although use of any or all types of psychotropics is about the same for those 18–20 years old and 21 years and over, the pattern of use shows marked differences. The younger respondents appar-

Table 3. Increase in use of tranquilizers, 1957–67

Surveys and questions posed	Date of survey	Number surveyed	Percent using
American Institute of Public Opinion: “Have you ever heard of pills called tranquilizers? (If YES) Have you ever tried them?”	March 1957-----	1, 550	7
Psychological Corporation: “By the way, have you yourself ever had occasion to take a tranquilizer?” (Asked of those who could define word “tranquilizer.”)	February 1960-----	3, 885	14
American Institute of Public Opinion: “Have you ever taken a tranquilizer?”	July 1960-----	1, 440	25
Social Research Group: ¹ -----	September 1967-----	3, 390	26

¹ The questions posed in the SRG survey have been listed in the preceding section in connection with table 1.

ently want to wake up rather than go to sleep; they are significantly more likely than their elders to use stimulants and are significantly less likely to use sedatives. Use of tranquilizers is about the same for both age groups. Only in this instance did a subgroup show any significant variation from the national pattern of using down drugs much more widely than up drugs. Incidentally, within the group 18–20 years old, men and women displayed similar patterns of psychotropic drug use—the young women being

even slightly more likely to use stimulants than the young men. Probably the greater use among young women stems from a desire to lose weight.

Use of Psychotropic Drugs at Any Time

The figures on use of psychotropic drugs at any time are approximately double those for use during the 12 months preceding the survey (table 2). The prevalence of use at any time approaches a magnitude of about half of the U.S. population. As to the use of tranquilizers,

Table 4. Proportions of demographic groups in a national sample who used psychotropic drugs in past 12 months

Groups	Number of respondents (unweighted)	Percent using—			
		Any type	Sedatives	Tran- quilizers	Stimulants
Total U.S. sample	2, 071	24	11	15	7
<i>Sex</i>					
Men	991	15	7	9	3
Women	1, 080	31	13	20	9
<i>Age (years)</i>					
18–20	95	25	4	12	14
21–29	408	26	9	15	9
30–39	417	26	11	16	9
40–49	417	26	12	16	7
50–59	347	18	7	14	4
60 years or over	452	23	14	14	2
<i>Education</i>					
Less than high school completed	899	23	10	15	5
High school completed	641	25	10	15	9
Some college	512	24	12	15	7
<i>Occupation</i>					
Professional	254	24	11	15	7
Managerial	215	31	12	15	10
Clerical, sales	208	25	9	15	7
Craftsman, foreman	391	25	9	17	9
Other manual, service	505	20	9	13	5
Farmer, farm laborer	134	19	8	10	4
<i>Population of home town</i>					
Rural	589	25	12	15	7
2,500–99,999	412	26	13	15	7
100,000–999,999	468	24	10	15	7
1,000,000 or over	602	22	8	14	6
<i>Region</i>					
Northeast	510	21	11	13	5
North Central	651	24	11	12	8
South	602	27	12	19	5
West	308	23	7	14	9
<i>Income</i>					
Under \$5,000	640	22	12	14	4
\$5,000–\$6,999	519	20	9	11	5
\$7,000–\$9,999	437	24	11	14	7
\$10,000 or over	445	31	10	20	11
<i>Race</i>					
White	1, 703	26	11	16	7
Negro	211	13	7	8	2
<i>Religion</i>					
Protestant	1, 294	23	10	15	6
Catholic	474	24	10	13	8
Jewish	43	47	21	36	8

SOURCE: Unless otherwise indicated, all data here and from here on are derived from the ORC national study.

available data suggest a 10-year trend. Research by several organizations indicates that the proportion of the adult population ever using tranquilizers has greatly increased over the decade 1957-1967 (table 3).

The rise in the proportions of adults reporting the use of tranquilizers at one time or another is reflected in the production and sales figures for tranquilizers reported over the decade (see chart). It can be seen that the steady growth in production and sales of tranquilizers, large though it is, by no means comes close to matching the growth in the proportion of adult Americans who report having used tranquilizers (5). Even if we take mean production and sales poundages for the 3-year periods 1957-59, 1960-62, and 1963-65 in order to minimize the effects of fluctuation in abnormal years, the same discrepancy remains. Several reasons for this discrepancy suggest themselves. Production and sales are year-by-year figures while percentages of the population who have ever used tranquilizers are in part cumulative; production and sales figures are given in thousands of pounds. Since 1957 there has been a tendency, partly caused by the development of newer and more powerful substances, to decrease the average psychotropic dose in milligrams and, consequently, to reduce the gross poundage. More people may be using smaller amounts of pills. This latter phenomenon has been observed in the case of alcohol consumption—in the last two decades the proportion of drinkers has grown much more rapidly than the total amount consumed.

Group Differences in Use of Psychotropic Drugs

A simple, first-order analysis of current psychotropic drug use among the major subgroups in the national population, based on the ORC survey, indicates relatively few and relatively small differences. Women were considerably more likely to have used psychotropics than men—an expected result which confirms earlier studies (2). The relatively well-to-do (those with family incomes of \$10,000 and over) had slightly higher prevalence rates than poorer respondents. This pattern, however, did not prevail among the better-educated, though normally education and income closely correlate. Men in managerial positions (or their wives) showed a slightly higher level of prevalence of

use than other occupational groups. Finally, race and religion (or other correlates associated with them) appeared to make a difference. Negro rates were lower than those of whites, while the reports of the small Jewish subsample indicated a particularly high prevalence of psychotropic drug use (table 4).

For nearly all groups in the population, whatever the overall prevalence of use, the proportions using the down drugs were markedly larger than the proportions using the up drugs. The major exception is the small group of respondents aged 18-20, who have been discussed in relation to table 1. The data in table 4 suggest a continuing decline in the use of stimulants with increasing age. The proportion using stimulants tends to increase with a rising income, but this increase is matched by a similar increase in use of tranquilizers and psychotropic drugs in general.

The higher prevalence of psychotropic drug use by the small group of Jewish respondents than by Catholics and Protestants appears to stem from a more widespread use of sedatives and tranquilizers. For stimulants, the figures on use reported by the three religious groups are comparable.

One proprietary drug which it is claimed exerts a psychotropic effect was listed along with the prescription drugs in the ORC survey. In general, the poorer and less educated tend to use more proprietary drugs than the wealthier and better educated and, conversely, to use prescription drugs less. Thus, if the wording of the question in the ORC survey had limited responses to prescribed psychotropic drugs, the differential prevalences of use by socioeconomic status probably would have been larger. Subsequent studies will take this point into account.

Rates by Sex, Religion, and Race

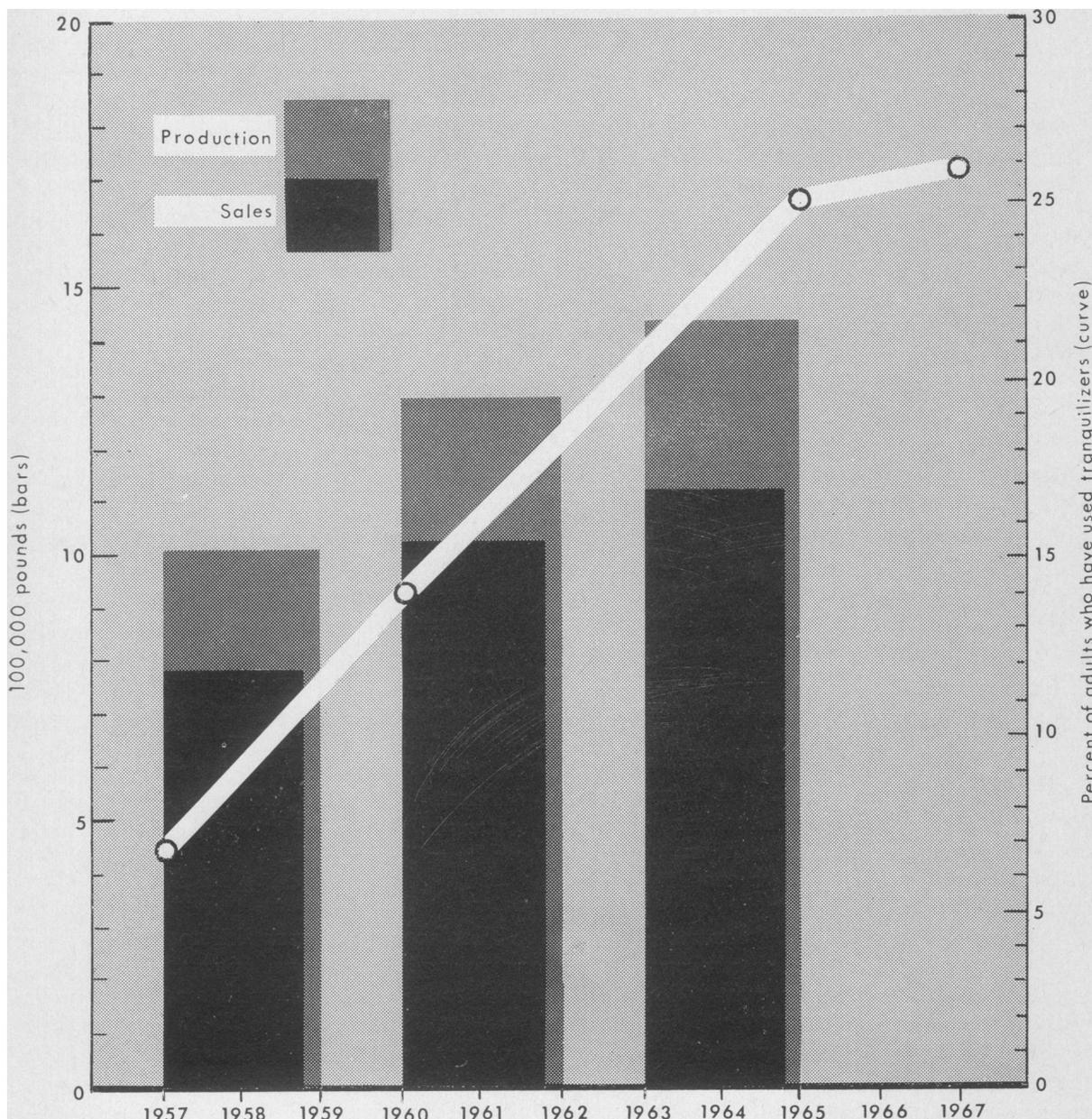
The largest apparent differences in current prevalence rates for use of psychotropic drugs seem to be associated with sex, religion, and race (table 4). The two high-use groups are women (more than half the sample) and Jews (a relatively small subsample which was well above average in education, income, and urbanism). The major low-use group, Negroes, represents a minority which is below average in income and education. Education and urbanism,

however, appear to have little direct relationship to differences in current psychotropic drug use, and income per se appears to be of relatively minor importance.

Results from a recently published Social Research Group study on American drinking

practices shed some light on these three variations (6). In the two groups that I have mentioned as displaying a high prevalence of psychotropic drug use—that is respondents who reported using alcohol primarily to change their moods—the proportions of escape drinkers

Comparison of pounds of tranquilizers produced and sold in the United States with the percentages of the adult population who reported ever using them



NOTE: The figures on production and sales represent the means for the 3-year period 1957-59, 1960-62, and 1963-65. The percentage ever using tranquilizers is

derived from respondents' replies in surveys conducted in 1957, 1960, 1965, and 1967 (see table 3).

Table 5. Comparison of escape drinkers with users of psychotropic drugs, by sex, religion, and race

Demographic group	Escape drinkers in U.S. population ¹		Users of psychotropic drugs in past 12 months	
	Number	Percent	Number ²	Percent
Total in national sample	2,746	20	2,071	24
<i>Sex</i>				
Men	1,177	25	991	15
Women	1,569	16	1,080	31
<i>Religion</i>				
Jewish	73	17	43	47
Non-Jewish	2,673	20	1,771	23
<i>Race</i>				
Negro	200	30	157	13
White	2,511	19	1,703	26

¹ Source of data is reference 6.

² From table 4.

were below the national level (table 5). In our society, taboos against drinking of any kind by women obtain among many subgroups. The widespread moderate use of alcohol in Jewish familial and religious settings, coupled with a traditional reprobation of heavy and escape drinking (7), also appears to inhibit the use of

alcohol by Jews in stress situations. For neither group, however, are there similar well-structured and traditional objections to the use of psychotropics. In contrast, escape drinking seems to be relatively prevalent among Negro respondents and to be associated with what may be a consequent decrease in the prevalence of psychotropic drug use.

Other factors in the low prevalence rate among Negroes would probably also be less awareness of the existence of psychotropic drugs, less available medical care, and similar disadvantages associated with deprivation.

Psychotropic Drug Use by Region

There is little variation among large geographic regions of the country in the current prevalence of psychotropic drug use (table 6). The South appears to be a little higher than the other regions in overall prevalence, largely because of a more widespread use of tranquilizers in that region, but the differences do not appear to be reliable. However, when respondents in the four major regions are controlled for other demographic characteristics, considerably larger variations can be noted.

First of all, in two regions, as well as in the nation as a whole, persons with family incomes in the \$10,000 and over category tended to show a higher prevalence of psychotropic drug use than did poorer respondents (table 6). The contrast is particularly striking in the North

Table 6. Proportions of respondents in major geographic regions who used psychotropic drugs in past 12 months, by income

Region and income	Number of respondents	Percent using—			
		Any type	Sedatives	Tranquilizers	Stimulants
<i>Northeast</i>					
Under \$10,000	373	19	11	11	5
\$10,000 and over	137	25	10	18	5
<i>North Central</i>					
Under \$10,000	480	19	10	9	5
\$10,000 and over	154	38	15	23	14
<i>South</i>					
Under \$10,000	517	27	13	19	4
\$10,000 and over	79	29	9	17	9
<i>West</i>					
Under \$10,000	226	22	8	12	7
\$10,000 and over	80	23	3	21	13

Central States, notably in respect to contrasting prevalences for use of tranquilizers and for use of stimulants. In the South and the West, in contrast, the overall use of psychotropic drugs is equally widespread within income groups both above and below the \$10,000 level. In the South, there was a tendency for the poorer respondents to report higher rates for the down drugs, while the wealthier were more likely to report use of the up drugs.

Since nearly all southern Negroes in the sam-

ple fell into the "under \$10,000" class, southern whites in the two income groups were compared separately. When this was done, there was little change in the percentages except to emphasize the pattern slightly more. In the West, the more well-to-do group reported higher prevalences for the newer drugs, whether tranquilizers or stimulants; the poorer group showed slightly higher use of the more old-fashioned sedatives.

Controlling the regional subsamples for age gives no revealing patterns in three of the four

Table 7. Proportions of respondents in major geographic regions who used psychotropic drugs in past 12 months, by age group and education

Region, age, and education	Number of respondents	Percent using—			
		Any type	Sedatives	Tranquilizers	Stimulants
<i>Northeast</i>					
Under 30.....	116	21	10	10	6
30 and over.....	399	21	11	14	5
Completed college.....	80	23	10	15	7
Less than college.....	429	21	11	13	5
<i>North Central</i>					
Under 30.....	155	28	11	12	13
30 and over.....	494	23	11	13	7
Completed college.....	71	23	14	16	6
Less than college.....	576	24	10	12	8
<i>South</i>					
Under 30.....	155	24	6	15	7
30 and over.....	449	28	14	20	4
Completed college.....	62	26	16	9	4
Less than college.....	536	27	12	19	5
<i>West</i>					
Under 30.....	84	31	7	22	15
30 and over.....	221	19	6	11	6
Completed college.....	21	46	8	38	12
Less than college.....	280	21	7	13	8

Table 8. Proportions of respondents of varying economic mobility who used psychotropic drugs in past 12 months, by sex

Sex and presumed mobility	Number of respondents	Percent using—			
		Any type	Sedatives	Tranquilizers	Stimulants
<i>Men</i>					
Upwardly mobile.....	34	24	2	17	7
Downwardly mobile.....	63	13	9	6	1
Higher stable.....	67	24	10	16	4
Lower stable.....	379	16	9	10	2
<i>Women</i>					
Upwardly mobile.....	32	35	5	20	15
Downwardly mobile.....	56	35	22	17	10
Higher stable.....	42	38	12	29	13
Lower stable.....	417	28	13	18	7

regions (table 7). In the West, however, respondents under 30 were markedly higher than their elders in prevalence of overall psychotropic drug use—a variation that derives almost completely from a significantly more widespread use of the newer drugs (the tranquilizers and stimulants) by the younger group. Again, when it comes to education, there were notably larger differences in the West between the college-educated and the rest, manifested in particular by a much more widespread use of tranquilizers among the college graduates (table 8). Even though the number of college-educated westerners in the sample was small, the differences are reliable.

Of the respondents interviewed in the West, most—about two-thirds—were located in California. It was impracticable to isolate a pure California sample, however, since the number of cases was too small and, more important, because no national sample is really designed for State-by-State comparisons. Comparable data based on an exclusively California sample are now being analyzed by Dean I. Manheimer and his colleagues at the Family Research Center at Berkeley. The data will be reported in a separate paper—“The Use of Psychoactive Drugs Among Adults in California” by Dean I. Manheimer and Glen D. Mellinger.

Psychotropic Drugs and Economic Mobility

Since the three questions on psychotropic drug use were “riders” on a national survey, analysis of the results except in terms of major demographic variables was generally not possible. However, by cross-analysis of the available data, we were able in some instances to isolate special groups. One such group consisted of respondents who appeared to be economically mobile, whether upwardly or downwardly. Part of these respondents had less than a high school education but a family income of \$10,000 and over. The other part consisted of respondents with college or graduate education whose incomes were under \$10,000. In table 8, both groups are divided by sex and then compared with the corresponding higher stable and lower stable groups—that is, with the college graduates of higher income and the high school dropouts of lower income.

To account for younger college graduates

whose careers (and incomes) were still in the early stage, the downwardly mobile group under 30 years was compared with the downwardly mobile groups 30 years and over. No important differences were found. In table 8, the two age groups are combined for the sake of simplicity.

Some earlier research raised the possibility that both of the extremely mobile groups—the downwardly mobile and the abnormally upwardly mobile—would be susceptible to some of the strains associated equally with failure and rapid success and would perhaps display a higher prevalence rate of psychotropic drug use than the other two groups (8). Although the number of persons in each cell is relatively small, a somewhat different pattern emerges. In prevalence of use of any class of psychotropic drugs, men of higher income, whether mobile or stable, tended to have a relatively high use, while use by lower income groups, whether mobile or stable, tended to be rather low. This result reflects the general contrast in usage found between the higher and lower income groups (table 4). It suggests that mobile men of both kinds tend to move toward the patterns of psychotropic drug use characteristic of the economic level toward which they are either rising or falling. There is also a slight indication that the upwardly mobile men, as might be expected, tend to be low users of sedatives and high users of stimulants.

For female respondents (predominantly wives of wage earners), the pattern is less clear. The lower stable group reported low overall prevalence of psychotropic drug use. However, the downwardly mobile women had a rather high prevalence rate—basically because of a relatively more common use of sedatives. The upwardly mobile women, like the upwardly mobile men, also tended to report relatively low prevalence rates for the use of sedatives and relatively high rates for stimulants, although here the pattern is less clear than among the men. If we look at the men and women who fall into comparable cells, we note a generally higher prevalence for women whether in total use of psychotropic drugs or of specific classes. This contrast, however, is particularly great between downwardly mobile men and women. There is a suggestion here, which will be examined more systematically in future research, that the wives

feel the strains of downward mobility more than their husbands, insofar as these strains manifest themselves in the use of psychotropic drugs.

Patterns of Use Among Men and Women

As noted, the rates of prevalence of use of psychotropic drugs for women were about twice as high as for men for each of the three classes of psychotropic drugs and for any psychotropic drug (table 4). Table 9 provides a detailed comparison by sex and income group and suggests that overall prevalence rates are highest for men and women at the \$10,000 and over level—largely because of the richer group's more widespread use of tranquilizers. The variations for men are a little uneven and of small magnitude. In contrast, the differences for the women appear to be considerable.

To see whether prevalence rates continued to rise with income levels, the "\$10,000 and over" group was divided into subgroups "\$10,000-\$14,999" and "\$15,000 and over." The overall rates for both sexes, and in particular the rates for tranquilizers, dropped back again somewhat for the richer of the two groups, suggesting that the progression may tail off in the higher income levels.

When the sexes are controlled for race, the sex differences among Negroes between rates for the

three classes of drugs and for overall use are relatively small; for white persons, they are large. Among Negroes, sex does not appear to be an important factor in differing prevalence rates. To put it another way, the rates for Negro women are as low as—perhaps a little lower than—the rates for white men.

Young Children in the House and Drug Use

Among the strains to which women are subjected, a large number of children under 17 years in the house is by no means the least. Data on this point were collected in another section of the ORC questionnaire and made available to us. The figures suggest that among married men, who are usually away at work except on weekends, the number of children in the house has little connection with the use of psychotropic drugs. Among married women, in contrast, the data suggest that there is a small increase in the use of psychotropic drugs at the stages when the number of children in the home reaches three or four, but then a notable drop in the level of use once there are five or more children (table 10). By and large, women with five children in the home tend to be from lower income groups in which psychotropic drug use (and for that matter medical care in general) is less frequent. Also, it may be that in a family

Table 9. Proportions of male and female respondents who used psychotropic drugs in past 12 months, by income and race

Sex, income, and race	Number of respondents	Percent using—			
		Any type	Sedatives	Tranquilizers	Stimulants
<i>Men</i>					
Under \$5,000.....	258	15	11	10	(1)
\$5,000-\$6,999.....	248	10	5	4	4
\$7,000-\$9,999.....	222	14	5	8	3
\$10,000 and over.....	233	22	8	14	6
<i>Women</i>					
Under \$5,000.....	379	26	13	17	7
\$5,000-\$6,999.....	269	29	13	19	7
\$7,000-\$9,999.....	220	33	16	20	10
\$10,000 and over.....	215	42	13	26	16
<i>Men</i>					
White.....	796	17	8	10	4
Negro.....	87	12	4	7	1
<i>Women</i>					
White.....	898	34	14	21	10
Negro.....	92	13	8	8	4

¹ Less than 1 percent.

Table 10. Proportions of married respondents who used psychotropic drugs in past 12 months, by sex and children under 17 years in home

Sex and children under 17	Number of respondents	Percent using—			
		Any type	Sedatives	Tranquilizers	Stimulants
<i>Men</i>					
None.....	314	16	8	9	3
1-2.....	319	16	6	10	3
3-4.....	105	15	8	6	4
5 or more.....	45	16	5	11	5
<i>Women</i>					
None.....	317	31	15	19	7
1-2.....	285	33	12	20	13
3-4.....	140	39	15	22	14
5 or more.....	57	22	13	16	10

with five or more children under 17 years, an older child can be detailed as a kind of non-commissioned officer to control the others.

One factor in the slightly higher prevalence rates among married women with three to four minor children in the house may be a higher income which, among women, is associated with higher use of psychotropic drugs (table 5). Among women with three to four children, nearly one-third report family incomes of \$10,000 or more—a considerably larger proportion than for married women in general. This factor, however, does not explain the rather sharp drop in use among women with five or more minor children in the house: among this subgroup, on the order of one in five reports a family income of \$10,000 and over—about the same proportion as in the figures for all women. Age and race also do not appear to be involved.

Summary

Evidence from two current surveys of national samples suggests that about one of four U.S. adults uses one or more kinds of psychotropic drugs. Nearly half the U.S. adult population report the use of a psychotropic drug at some time. Stimulants are used by the smallest proportion, sedatives by a larger proportion, and tranquilizers by the largest group. Cumulative use of tranquilizers over a decade has shown a steady increase—from about 7 percent of the population in 1957 to about 27 percent in 1967.

There are relatively few significant differences in prevalence of use by major demo-

graphic groupings. Major differences appear to be related to sex, religion, and race. Women are markedly higher in use than men; Jews are higher than Protestants or Catholics in overall use and in sedatives and tranquilizers, but not in stimulants. Lower proportions of Negroes than of whites use these drugs; the pattern for both sexes among Negroes is fairly similar to that for white men. Among whites, in contrast, there are fairly large differences between the sexes. The two groups with high prevalence of psychotropic drug use (women and Jews) have low rates of escape drinking; the group with low prevalence (Negroes) displays high escape drinking rates.

Higher income seems to be associated with higher use in the Northeast and North Central regions, but not in the South and West. People apparently tend to adopt the drug use patterns of the economic groups that they are moving up or down into. The use by men in the highest income bracket differs only slightly from the use by men in the lowest; for women, the differences by income level are more substantial.

REFERENCES

- (1) National prescription audits 1963, 1964, and 1965. R. A. Gosselin and Co., Dedham, Mass.
- (2) Shapiro, S., and Baron, S. H.: Prescriptions for psychotropic drugs in a noninstitutional population. *Public Health Rep* 76: 483-485, June 1961.
- (3) Public information and attitudes concerning tranquilizers. *Psychological Barometer Report*. Psychological Corporation, New York, 1960, pp. 6-7.
- (4) Manheimer, D. I., and Mellinger, G. D.: *The psy-*

chotropic pilltaker—will he talk? Public Opin Quart 31: 436-437, fall 1967.

- (5) U.S. Tariff Commission: Synthetic organic chemicals, U.S. production and sales. Statistical Abstract of the United States, 1967. U.S. Department of Commerce, Bureau of the Census, Washington, D.C., 1967, table 107, p. 82.
- (6) Cahalan, D., Cisin, I. H., and Crossley, H. M.: American drinking practices. Social Research

Group, George Washington University, Washington, D.C., 1967, table A-96, pp. 326-328.

- (7) Plaut, T. A.: Alcohol problems—A report to the nation. Cooperative Commission on the Study of Alcoholism. Oxford University Press, Inc., New York, 1967, pp. 48-126.
- (8) Bettelheim, B., and Janowitz, M.: Dynamics of prejudice. Harper & Row, Publishers, New York, 1949, pp. 57-61.

PUBLICATION ANNOUNCEMENTS

Address inquiries to publisher or sponsoring agency.

Clinical Research in Alcoholism. Psychiatric Research Report No. 24. Edited by Jonathan O. Cole, M.D. March 1968; 178 pages; \$5. American Psychiatric Association, 1700 18th St. NW, Washington, D.C. 20009.

Aging in Modern Society. Psychiatric Research Report No. 23. Edited by Alexander Simon, M.D., and Leon J. Epstein, Ph.D., M.D. 1968; 248 pages; \$5. American Psychiatric Association, 1700 18th St. NW., Washington, D.C. 20009.

Hospital Costs in Massachusetts. An economic study. By Mary Lee Ingbar and Lester D. Taylor. 1968; 237 pages; \$7.50. Harvard University Press, Cambridge, Mass.

Minimal Brain Dysfunction. A new problem area for social work. 1968; 28 pages; 25 cents. National Easter Seal Society for Crippled Children and Adults, 2023 Ogden Ave., Chicago, Ill. 60612.

Accounting Manual for Long-Term Institutions. Financial management series. January 1968; 121 pages; \$3.50. American Hospital Association, 840 North Lake Shore Dr., Chicago, Ill. 60611.

Manual for Hospital Performance and Program Budgeting at the Operating Level. By Richard L. Durbin, W. Herbert Springall, and C. Paul High. 1967; 41 pages plus appendix. Temple University Hospital, Health Sciences Center, Philadelphia, Pa. 19140.

Proceedings, 3rd Annual Workshop of the American Association of Professors in Sanitary Engineering,

June 24-26, 1968. 1968; \$6. Dr. Edward L. Thackston, Box 133, Station B, Vanderbilt University, Nashville, Tenn. 37203.

Triaryl-Phosphate Poisoning in Morocco, 1959. Experience and findings. Edited by order of the League of Red Cross Societies. By A. V. Albertini, D. Gross, W. M. Zinn. 1968; 182 pages; \$5. Intercontinental Medical Book Corp., New York, N.Y.

The Interview in Student Nurse Selection. By C. H. Smeltzer, Ph.D. 1968; 184 pages; \$6. G. P. Putnam's Sons, New York, N.Y.

The Dimensions of Community Psychiatry. Vol. VI, Report No. 69. Formulated by the Committee on Preventive Psychiatry. April 1968; 48 pages; \$1. Group for the Advancement of Psychiatry, 419 Park Ave. South, New York, N.Y. 10016.

World Health Organization

WHO publications may be obtained from the Columbia University Press, International Documents Service, 2960 Broadway, New York, N.Y. 10027

The Physiological Basis of Health Standards for Dwellings. Public Health Papers No. 33. By M. S. Goromosov. 1968; 99 pages; \$1.75; Geneva.

Principles and Practices of Screening for Disease. Public Health Papers No. 34. By J. M. G. Wilson and G. Jungner. 1968; 162 pages; \$2.25; Geneva.

Chemotherapy of Malaria. Report of a WHO Scientific Group. WHO Technical Report Series No. 375. 1967; 91 pages; \$1.25; Geneva.

Current Problems in Leptospirosis. Report of a WHO Expert Committee. WHO Technical Report Series No. 380. 1967; 32 pages; 60 cents; Geneva.

WHO Expert Committee on Malaria. Fourteenth report. WHO Technical Report Series No. 382. 1968; 50 pages; \$1; Geneva.

Specifications for the Identity and Purity of Food Additives and Their Toxicological Evaluation: Some flavouring substances and non-nutritive sweetening agents. Eleventh report of the Joint FAO-WHO Expert Committee on Food Additives, 21-28 August 1967. WHO Technical Report Series No. 383, FAO Nutrition Meetings Report Series No. 44. 1968; 18 pages; 60 cents; Geneva.

Financial Report, 1 January-21 December 1967. Supplement to the Annual Report of the Director-General for 1967 and Report of the External Auditor to the World Health Assembly. Official Records of the World Health Organization No. 167. April 1968; 99 pages; \$1.25; Geneva.

Executive Board, Forty-first Session, Geneva, 23 January-1 February 1968. Part I. Resolutions, annexes. Official Records of the World Health Organization No. 165. March 1968; 102 pages; \$1.25; Geneva.

Executive Board, Forty-first Session, Geneva, 23 January-1 February 1968, Part II. Report on the proposed programme and budget estimates for 1969. Official Reports of the World Health Organization No. 166. March 1968; 121 pages; \$1.25; Geneva.